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**REPARATURNO I PROIZVODNO NAVARIVANJE
RADNIH DELOVA OD NERĐAJUĆIH ČELIKA
U KONDITORSKOJ INDUSTRIJI**
REPAIRING AND MANUFACTURING HARD-FACING
OF WORKING PARTS MADE OF STAINLESS
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Rezime: U ovom radu, u cilju unapređivanja tehnologije reparaturnog navarivanja, se posebno analizira reparaturno navarivanje alata za izradu komprimovanih proizvoda u konditorskoj industriji. Ovi proizvodi se izrađuju od mešavine više komponenata u prahu, koja se pod velikim pritiskom u alatima sabija. Tako se ostvaruje vezivanje čestica uz postizanje određene čvrstoće i tvrdoće konditorskog proizvoda. Razmatrani alat je izrađen od visokolegiriranog nerđajućeg čelika. Alat ima 30 identičnih radnih mesta. Pored procesnog habanja, kod ovog alata se povremeno

Abstract: In this paper, for the sake of improving the reparatory hard-facing technology, is especially analyzed reparatory hard-facing of tools for manufacturing compressed products in confectionary industry. Those products are being made of a mixture consisting of several powdery components, which is compressed under high pressure. In that way the connection between particles is realized, thus achieving certain hardness and strength of the confectionary product. The considered tool is made of high-alloyed stainless steel. The tool contains 30 identical working places. Besides the production process wear, on those tools, from time to time, appear mechanical damage

javlja i mehaničko oštećenje na pojedinim oblikačima u vidu pojave prslina na ivicama koji daju finalni oblik proizvoda. Ova oštećenja su dimenzionalno mala ali se veoma odražavaju na krajnji oblik proizvoda. Otežavajuća okolnost je što je oblikač izuzetno opterećen na pritisak, tako da je posle primene reparaturnog navarivanja neophodna i naknadna termička obrada. Otpuštanjem se ujednačavaju mehaničke osobine u ZUT-u i delom umanjuju zaostali unutrašnji naponi.

Ključne reči: *reparatura, navarivanje, dodatni materijal, konditorska industrija, habanje, tvrdoća, mikrostruktura, oblikač*

on some of the products' shape formers, as cracks at the edges, where the products' final shapes are formed. Those damages are small, size wise, but they cause strong effect on the products' final shape. The aggravating circumstance is that the shape former is extremely loaded in pressure, thus after the reparatory hard-facing, the additional heat treatment is necessary. Mechanical properties in the heat affected zone (HAZ) are being leveled by annealing and what also partially reduces the residual internal stresses.

Key words: *reparation, hard-facing, filer material, confectionary industry, wear, hardness, micro structure, shape former*